

Application No. 10/066,019

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**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

- 1 1. (previously amended) A crosspoint switch integrated circuit comprising:
  - 2 an array of input ports;
  - 3 an array of output ports;
  - 4 a switch matrix configured to selectively connect said input ports
  - 5 to said output ports for conducting electrical signals therebetween; and
  - 6 equalization circuitry coupled to at least partially offset trans-
  - 7 mission losses experienced by said electrical signal while external to said
  - 8 crosspoint switch integrated circuit, said equalization circuitry being
  - 9 configured to measure jitter within said electrical signals and to utilize jitter
  - 10 measurements as a basis for offsetting said transmission losses, said
  - 11 equalization circuitry being responsive to said jitter measurements to
  - 12 automatically select levels of equalization.
- 1 2. (cancelled)
- 1 3. (original) The crosspoint switch integrated circuit of claim 1 wherein said
  - 2 equalization circuitry includes a plurality of adjustable equalizers, said
  - 3 adjustable equalizers each having adjustable filtering characteristics within a
  - 4 fixed number of equalization settings.
- 1 4. (original) The crosspoint switch integrated circuit of claim 3 wherein each
  - 2 said adjustable equalizer includes a plurality of switchable connections which
  - 3 individually adjust said filtering characteristics when activated.

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1 5. (original) The crosspoint switch integrated circuit of claim 4 wherein each  
2 said switchable connection includes a switch, at least some of said switchable  
3 connections including at least one component which significantly affects said  
4 filtering characteristics when said switchable connections are individually  
5 activated.

1 6. (original) The crosspoint switch integrated circuit of claim 5 wherein at  
2 least some of said switchable connections are arranged in electrical parallel  
3 and said components include capacitors and resistors.

1 7. (original) The crosspoint switch integrated circuit of claim 5 wherein at  
2 least some of said switchable connections are arranged in electrical parallel  
3 and said components include an inductor and a resistor.

1 8. (original) The crosspoint switch integrated circuit of claim 5 wherein said  
2 switches are transistors and said components include at least some of  
3 resistors, capacitors, or inductors.

1 9. (original) The crosspoint switch integrated circuit of claim 4 wherein  
2 adjustable equalizers are coupled to said input ports in one-to-one  
3 correspondence.

1 10-18. (cancelled)

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1 19. (currently amended) A method of providing equalization for a crosspoint  
2 switch formed on an integrated circuit chip ~~switch~~ comprising:  
3 determining signal characteristics related to signal transmissions  
4 via each of a plurality of ports of said crosspoint switch, including providing  
5 on-chip measurements of jitter of electrical signals, wherein said jitter is  
6 induced by off-chip conditions; and  
7 setting equalization circuitry housed within said crosspoint  
8 switch such that each said port has filtering characteristics tailored on a  
9 basis of said signal characteristics for said signal transmissions via said  
10 each port, said setting being automated and being at least partially based on  
11 said on-chip measurements of jitter.

1 20. (previously presented) The method of claim 19 wherein said step of  
2 setting includes selectively activating and deactivating switching devices  
3 which introduce parallel connections of resistances and capacitances within  
4 said equalization circuitry, said equalization circuitry being a plurality of  
5 adjustable equalization circuits.

1 21. (previously presented) The method of claim 19 wherein said step of  
2 setting includes selectively activating and deactivating switching devices  
3 which introduce series connections of resistances and inductances within said  
4 equalization circuits.

1 22. (original) The method of claim 19 wherein said step of setting includes  
2 activating adaptive equalization circuitry.

1 23-24. (cancelled)

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1 25. (previously presented) The crosspoint switch integrated circuit of claim 1  
2 wherein said equalization circuitry includes a multiplexer connected to a jitter  
3 measurement component for providing said jitter measurements, said  
4 multiplexer being connected to receive said electrical signals from each of  
5 said input ports and being operatively associated with said jitter measurement  
6 component to enable said jitter measurements on a port-by-port basis.

1 26. (previously presented) The crosspoint switch integrated circuit of  
2 claim 25 wherein said jitter measurement component includes a phase-locked  
3 loop for tracking data transactions within said electrical signals, said jitter  
4 measurement component further including a voltage-controlled oscillator  
5 connected to be responsive to operations of said phase-locked loop.

1 27. (previously presented) The crosspoint switch integrated circuit of claim 1  
2 wherein said equalization circuitry is configured to recurrently execute said  
3 jitter measurements and recurrently execute responsive selection of said  
4 levels of equalization for individual said input ports, thereby enabling said  
5 levels of equalization to track variations in said transmission losses.